[P. 1]

SUMMARY

On the assumption that a woman's physical and mental condition at childbirth is a product of her life-long daily habits and ideas as well as any particular injunctions set up to insure well-being in pregnancy and parturition, the cultural scene was searched to ascertain all possible relevancies.

The farmers of Bang Chan lived in a tropical, rice-growing terrain, annually flooded by the monsoon run-off. Food was plentiful even if cash was not. Except for better housing and equipment, and a greater enjoyment of market novelties, the rich lived much like the poor. The work in the fields by women paralleled that by men. Sharp physical demands, especially at planting and harvest, made them muscular.

At marriage the partners were fully mature and no woman was married against her wishes. The birth of a child was welcomed as leading to higher personal, social, and economic status.

The underlying concepts which explain why the food and other injunctions, both pre-natal and post-partum, and the ritual behavior took their particular forms, are explained.

The human body, harboring multiple immaterial souls, was seen as composed of earth, fire, water, and wind. Illness was caused by intrusive disruption of these four elements, or by soul loss. Food and medicines had properties which could be used to restore balance in the elements. The traditional curers or exorcisers had magical and herbal remedies obtained ritually from a teacher. Since Buddhist phrasings, often read from old texts in weekly sermons, molded Bang Chan's conception of life, the ultimate cause of health or illness was the presence or absence of merit. This determined one's kam (karma), the balance sheet of virtuous actions which one added to, or reduced by sinning throughout successive existences over eons of time.

The Buddhist cosmic view of individuals as separate autonomous beings brought it about that help was the only dynamic relationship possible between people. The bonds established by helping people, on this earth, especially in the tasks of feeding priests, lasted on into successive incarnations. Thus, meritorious people met again and might marry again. Families had continuity over time, and babies were born into the "right"

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278 [563] The Chinese druggists, many of whom stocked among their traditional pharmacopeia a few modern medications, gave out occasionally to their customers information derived from the manufacturer's instructions for use. People with minor indispositions sometimes sought a druggist's advice. He suggested traditional or modern remedies, depending on the wishes of the customer. Thus, the druggists also acted as a bridge to the use of modern remedies.

484 Facets of Social Life Pertinent to Childbearing:

Communication and Transportation

People went to Minburī, and less often to Bangkok, to buy, sell, work, or visit relatives. A few adults had never been outside Bang Chan.

494 [484] [206] [493] Along the road buses passed Bang Chan every two or three hours during the daytime only. Minburī was a ten minute ride, Bangkok, an hour. Minburī had no taxis, and no telephone existed to call a taxi from Bangkok. Two or three persons owned bicycles.

505 484 Within Bang Chan, transportation varied with the season. From June to February travel was entirely by boat, even to a neighbor. A message to a local midwife, for instance, could be carried quickly by a speedy peddler in his skiff. If an emergency trip to the Minburī Health Center appeared necessary, a person could be rowed fairly comfortably along the canal that bordered the road. Going by boat to Bangkok, a whole day's row away, or four hours by the motor boat from Minburī, was not considered convenient even for passenger traffic, much less for a sick person or a woman in labor.

484 844 [494] The inconvenient time of year was the three month dry season. Boats then could hardly go on the canal that ran through the middle of Bang Chan, while the smaller canals became muddy or even dry. Walking barefoot over sharp stubble in tropical sun was hard. To transport a woman in labor, assuming she could stand it, an improvised stretcher could be made, but to subject her to the jolting bus was usually foolhardy. It was not customary to flag down passing cars. If things went wrong for a woman in labor during the hot, dry season, there was practically no chance of getting her to a hospital, and none of getting modern help to her.

243 433 Work Habits in the Economy

Because of the annual flood the land was admirably suited to growing a single bounteous crop of rice. After all needs for

food, seed, and chicken feed were met, 58 per cent of the crop remained to be sold off for cash (Janlekha 1955:53). Almost every inhabitant was engaged in commercial rice farming. A few teachers, craftsmen, and traders, alone did not farm. Plantings of early and late varieties in different plots spread the toil. Cooperative work or some local hired help assured adequate labor forces at the needed moment. Nevertheless, two heavy work seasons dominated the rice cycle. The first of these, June through August, involved soil preparation and transplanting of the seedlings in long straight rows. In the second season, November into February, the rice was harvested, brought home for threshing and winnowing, then sold or stored. The straw was stacked as buffalo feed. People were anxious during the preparatory and planting season, for rains were fickle and the planning and timing had to be exact. Work was hard and almost grim. Harvest, though perhaps more of a physical strain because people cut the stalks by day, then threshed and winnowed far into the night, was gay and so less taxing emotionally, for the crop had safely passed through the threats of flood, drought, and pest, and "cash was in sight." Haste was necessary because each plot of rice had to be harvested within three or four days of its maturity, and because at that season the canals were drying up rapidly, raising the possibility not only that human backs and not boats would move the crop, but that the buyers themselves could not get their boats in to take the main portion to the urban markets. Then a farmer might have to wait until the canals filled again in June to sell his rice and get his money. Since during the busy seasons everyone from age 16 on up was taken up with farming, the cooking, child care, and other chores were carried on by the aged and the very young. These work days taxed to the limit the strength of all men, women, and even young people. Ten to 18 hours might be spent stooping to transplant or weed, or, at harvest, to cut the rice stalk close to the ground. There was a great deal of heavy lifting of seedling bundles or sheaves. The few professional masseurs in the area said they were kept on the run because of back complaints especially during the periods of heavy labor.

In the periods between these two seasons, tools were repaired, houses rebuilt, and ceremonies organized. Extra cash was earned in various ways. People kept very busy, though they did allow themselves more sleep.

The importance of women's role in agriculture is indicated by their virtual equation with men. In every step of rice-production women worked alongside men, plowing with the buffalo, planting, weeding, harvesting, repairing the dikes, hauling, etc. Only uprooting the seedlings was exclusively man's work (even this was done by women elsewhere in Thailand [Kingshill 1960:73]).

Besides the work in rice-fields, women dug and cleaned

Thus she performed several rites involving the maintenance of the immature khwan of children and of rice.[54]

The acme of maternal virtues was manifested in the "good nourishers" (lîang dî). These women had borne many children who "nursed and slept well, did not cry, and easily established good habits." They were lîang dî not just because of the time spent by the fire, for that time could be matched by persons who had lost babies. They were special persons of more than usual capacities for success in nurture. Good to have around for their auspicious influence, they were called upon to inaugurate or help processes concerned with health and growth. They performed, or caught the child in the winnowing ceremony, or gave babies their first suck. They were the persons to whom a sickly child was brought so that his health might be improved by calling the soul and tying holy cord at wrist and ankle (riak khwan).

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54. If a child indicated by continuous crying that he had lost his khwan, a mature (sùk) woman had to be asked to call it back ritually and re-tie it into the body with sacred cord at wrist and ankle. There was no special magic. Her words suffice. Khwan-ladlâng, a more elaborate and compelling form of the same ceremony, used magical formulae (Textor:401-402). One of Phillips' sentence-completion tests was, "If one is frightened, the best thing to do is..." Of the respondents, 7 women, including one Muslim, would set to work to "call back the khwan" (Phillips:267-268). No man suggested the latter.

In the agricultural rites, women handled the rice's khwan in basically the same way when it was immature: inviting the young Rice Goddess to stay and grow in the field, and transporting to the house the child-like seed that only next year would grow to maturity. For these rites a woman used an incantation if she knew one. That she could also handle the rice khwan by speaking "extemporaneously" (Textor:429), indicated that her mere words were enough. If no one else were available, a non-sùk woman could call the khwan of a child or of the Rice Mother by reason of her in-born female potency, but could not "ladle" a khwan.

When the khwan was mature (after a person was about age 10) men took over its care. In the men's thaw khwan (khwan-strengthening) rite, here, too, women were the ones to carry off the cloth-and-leaf covering of the bàisĭ (tiered offering) into which the khwan [illegible]flitted during the ceremony. The rice-ceremony at the threshing floor was a thaw khwan, so was performed by men.

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132 Bangkok. The tropical monsoon climate divides the year into three seasons, a hot, wet season from late May to November, a cooler, dry season from December to early February, and a hot, 361 dry season from late February to mid-May. The community, scattered over an area of approximately five square miles, was 161 composed of seven neighboring hamlets. In 1954, the population 162 was approximately 1700, divided among 336 households. About 60 per cent of the households were made up of independent families, parents with unmarried children, with an average family [943] size of 5.7 persons. The main occupation of 80 per cent of all families was rice farming.

243 The climate together with the overflowing Chao Phraya [13] river, provided natural conditions for raising a single crop [221] of wet rice. From May or June to February, the principal activities were those connected with rice production. This crop greatly exceeded the needs for local consumption as human food, [435] feed, and seed. The surplus of rice which was sold, was estimated for 1953 as 1.4 times the amount used for all purposes within the village (Janlekha, 1955).

346 Wat Bang Chan, the Buddhist monastery and place for re- 621 ligious exercises, was also the center of social life in the [795] community. When data for this study were being gathered, the one primary school in the village was located on the grounds of the wat. The community was defined simply by the clientele which patronized Wat Bang Chan and this elementary school. [563] Within the area of the community lived a small minority of Thai Moslems who patronized a mosque and school just outside Bang Chan. The few Chinese in the village were considered as part [028] of the Thai-Buddhist community. Information to be presented on food habits refers prisarily to habits of the Buddhist majority, although some reference will be made to ways in which Moslem practices differed therefrom.

193 Although for six or more months of the year the fields 243 were covered with water, sometimes to a depth of a meter or 481 more, a year-round road, connecting Bangkok and Minburi, the 484 nearest market town, ran through one edge of the village. Bus 587 service was available along this road, to either Bangkok or [934] Minburi but within the community one went by boat on the network of canals during the wet season, and during the dry season, [501] on foot along the dikes or across fields. From late January through May, when subsidiary canals were apt to be dry, getting about was somewhat difficult. Boat travel was considered easy, but as many families had only one boat, a trip to the store or even to a neighbor's home had to be planned with reference to the activities of other family members.

443 Large scale purchases, as for a ceremony, were always made at a big market, but in general, instead of people going to the market-town, the "market" came to the people. Boat-venders brought not only fresh produce and staples but also sweets, ices, soft drinks, and cooked foods such as Chinese

Chart 1. SEASONAL CYCLE - BANG CHAN, THAILAND, 1953-54

	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Season	→ ‹---WET---›							‹--COOL--›		‹--HOT--›		
Temperature (°C)[1]	30	29	28	29	29	28	26	25	25	28	30	30
Humidity, rel., %	77	80	81	81	80	78	74	70	70	65	66	67
Rainfall	---→ heavy		moderate	‹---heavy---›		‹------light------›			‹------negligible------			
Canals	rising			high		(floods)			lowering fast		low,dry	
Cultivation of Rice	plowing-------→ seedbed grown				growing	early var. mature						
				TRANSPLANTING		‹---------HARVEST--------›						
School	vacation							vacation			vacation	
Cash available Source	cash in hand---------- rice					‹-----cash shortage-----›				cash in hand--		
						cash jobs---------→			main rice sale			
Fruit;vegetables	--→ ‹-new planting-›									‹------annuals die-----		
Fish: Supplies	ponds drained-→									‹-----ponds drained-------		
Maturation			‹-------many varieties----------›							‹---best varieties---›		
Preserving	‹---much---›		‹----------moderate----------›							‹----------most-------›		
Ceremonies	ceremonies-------→			‹-----Buddhist Lent-----›							‹--ceremonies---	
Dietary survey	--→ ‹-----Round I------›					‹-------Round II-------›			‹----Round III----›		‹--Round IV-	

1. Mean temperatures and relative humidity estimated from charts for Bangkok and the central plain of Thailand (Bunnag and Dhararak, 1947). Mean monthly temperature range from 25-30°C corresponds to 77-86°F; diurnal variations are greater, averaging 15°F (10°C) in April and 22°F (12°C) in January.

Despite the availability of fish and of vegetables in the canal, the highest cash outlays for family food occurred in this transplanting season. Several factors probably contributed to this: increased food energy needs because of long hours of work, venders again accessible because of high water, cash from sale of last year's crop still in hand, the convenience of cooked foods and snacks, and perhaps the need to replenish household supplies after the long drought, or after their depletion by a ceremony.

The two months of September and October during which the rice grew afforded some respite. People slept a little longer and breakfast was not prepared so early. The skilled cook might take over and could give more attention to food preparation. All who could, took the opportunity to visit and take trips. A few might go on a pilgrimage. Therefore, in this season, all family members were less often together at the evening meal. Fishing was a continuous occupation, with some preserving and home craft. Jobs such as selling food in the market were undertaken for ready cash; houses and equipment were built or repaired. Finally the threshing floor was prepared.

High water caused time-consuming inconvenience only in earth-floored cottages where it was necessary to keep the rice stores and chickens dry, move the cook-stove, and either build plank walks or cook standing ankle deep in water.

By November, the earliest varieties of rice matured. Those who owned several rice fields could put at least one into an early type. Many persons, by then short of rice, were glad to be thus tided over. One grandmother divided her first harvest among her several long-since-independent married children; 2 tangs[1] of milled rice per family, 40 for herself.

The heroic labor of harvest occupied December, January, and February. Farmers raced against the all-too-fast lowering of the water in the canals, without which sheaves could not be moved and buyers could not come for the paddy. People worked all daylight hours in the fields, threshed far into the night. At this time also many varieties of fish matured and men fished night after night. Just when the convenience of purchased food was greatest, cash was exhausted. With rice money in sight, venders might be generous with credit, but they could navigate only the larger canals, so were not available to many.

There was an important psychological difference between

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1. One tang equals 20 liters. Milled rice weighs about 16 kg. per tang.

There was an important psychological difference between the two work seasons. At planting time, people were anxious; at harvest they were happy. People saw cash just ahead, for the crop was now safe. Each host of a cooperative work party gave at least one big convivial feast, the best he could provide and even the hired laborers got a round of liquor. People joked more than usual at work. Two boat loads of workers were observed racing down a canal at 6 a.m., shouting and cheering, although they had probably worked long hours for days or weeks before. Everyone knew that a joyous season was at hand.

When the crop was in, the people rested, fished, and began to prepare for big ceremonies demanding organized work. Supplies of fish were needed for preserving or for feasts. Labor and engines were now available, and with water low, fishponds could be conveniently drained, and the fish on the muddy bottom caught. A pond might be drained two or three times a year, but timing was determined by the availability of equipment and workers and by the needs of the annual ceremonial cycle. One pot of fish was given to each helper at a cooperative pond-draining.

Most farmers sold their rice in February. Capital was invested in farm equipment, buffalo, housing and ceremonies. Debts were cleared if possible. Cash expenditures for food, which had declined progressively since the beginning of the rice year, reached the yearly minimum, mostly because people had ample time to fish. People also saved up their money if they were sponsoring a ceremony, ate lightly at home if they were going to one. Since school closed from March 15 to May 1, because of the heat, money was not given to children for snacks.

The land dried up and cracked, rainwater for drinking gave out, and some canals were reduced to mud. Cherished plants were kept alive by watering, but no new planting could be done. Buffalo, which at either seasons were confined and fed, now roamed the fields, nibbling stubble. Everyone was busy and happy. Ordinations, weddings, cremations, merit-making feasts and several big holidays came one after another. Of the four New Year's Days observed in Bang Chan, the Buddhist New Year, which because of the lunar calendar fell about mid-April, was the most important, being celebrated over two days with extensive offerings of food to the priests and with other activities. The official New Year's Day, January 1, and the traditional New Year's Day about November 1, had rather slight observances. Chinese New Year's, in February, was celebrated by the Chinese residents who presented a school teacher and their hamlet headmen each with a boiled chicken and a Chinese sweet. Lent officially closed the ceremonial season, but the advent of plowing-time slowed the pace considerably.

When the rains finally came, the rice year started again.

Attitudes Toward Food

To older Bang Chan residents, to lack rice was to starve even though fish or vegetable fare were at hand. Since rice was the staff of life, many important customs clustered about it. Ceremonies to the Rice Goddess accompanied the raising, selling, and storing of rice. When the unhusked rice was in the bin, it could not be withdrawn at any time as needed, but astrological charts had to be consulted to make sure the day was auspicious. Paddy could never be withdrawn on Friday, a day sacred to the Rice Goddess. After cooking, the best rice was said to be at the mouth of the pot, so this was offered on ceremonial occasions. Important rules were that when cooking rice, the cover of the pot must never be laid in a mortar and it must be inverted, never laid down flat; otherwise one would be short of rice. One must never scrape the top of the rice with the cover, or the "soul" of the rice would be scraped out of the pot. Moslem residents murmured an Arabic prayer every time the rice was put into the pot, and every time the pot was put onto the fire, as well as before eating.

Rice has been generally regarded as the strength-giving food par excellence. A portion of Chutima's (1939) description of the "old system" follows:

> Our children and young women are forbidden by ancient doctrine from eating any fair quantity of animal products, but must eat plenty of rice which is considered as the only true food, the others being only appetizers. And to stimulate the palate, large quantities of hot and irritating condiments (chilies and peppers principally) are consumed at every meal. Some vegetables, boiled or raw, are also included, but in small quantities in spite of abundant supply.

The quotation indicates first that in the past, rice was considered much more important as food than the "with-rice" dishes. Since the Food and Drug Division of the Ministry of Public Health has been attempting to encourage the eating of more "with-rice," the attitudes found in Bang Chan are of interest. One informant stated that only rice can make children fat, and that the "hot taste" foods help them to eat more rice. Another commented that rice makes children strong, and "with-rice" makes them weak. Another, a mother of seven children, said that if babies were given too much "with-rice" they would be potbellied. The more modern view was expressed by an informant who said that a certain child ate only rice with fish, and was weak; he refused vegetables and banana. One affluent farmer, an elderly man whose orphaned grandchild was being raised on cow's milk (evaporated or dried milk, diluted with boiled water) expressed the opinion that the ancient belief was based on thrift. He said that thrifty

511 appeared to account in large part for the greater cash expenditures of some families than others. Thus Household 25, with the highest total and per capita cash expenditure for food among these 11 families, consumed a larger quantity of meat than others, and often bought beef, which was the most expensive item purchased. This household bought fruit, meat, and vegetables from venders almost every day. They said [554] [922] "Some do not pay money to buy food, but pick or get it from the canal or gardens --this family cannot live like that because they come from a rich family and cannot live on poor food, so most of the money goes for food." The husband said "I cannot work on poor food." In Group A, Household 12, which had the highest per capita food expenditure, had little home produced food. The wife, who went to Bangkok often, usually bought food when in town. Household 2, with a total cash expenditure for food higher than others, did not have pork or beef on survey days, but ate more (1)plaa (1)thuu, a sea fish which is purchased.

433 511 Home Production of Food. - In keeping with the general pattern in the community, the families surveyed produced most of their own food.

243 [649] 256 [262] Rice. - The hired laborer received rice as part of his pay, but all other families produced their own. Seven households used polished rice exclusively (Table 9). The only one to use home pounded rice in major part was Household 103. This family lived near a little canal which was dry in summer, so they were using home pounded rice when visited toward the end of March and in mid-July (Rounds IV and I). When the observer came in January (Round III), transportation of rice to the mill by boat was possible, but the family members had little farm work to do and were willing to spend some time milling rice. This family, which lived in the home-milling area (see p. 40), took rice to be milled only during the harvest season when they were busy, and the level of the canal was still high. The families which used home pounded rice in minor part did not live in the home-milling area, and apparently milled rice at home only when they were unable to get to the mill by boat.

244 [554] [945] Fruits and vegetables. - Although the Thai government has attempted to encourage kitchen gardening, few vegetables and fruits were produced by the families which cooperated in the dietary study (Table 10). All families grew bananas, and certain common ingredients of curries: chilies, bergamot, galangal and lemongrass. No other plants were grown by as many as half of the families studied.

222 262 Of the edible plants which grew wild, swamp cabbage was used by 7 families on 11 of the 44 survey days. Bamboo shoots, the white flowers of the West Indian pea tree and yellow (2)ga-(5)noo flowers were used by 3 families on one day each;

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244 cent of the respondents report that they have engaged in this activity). Even if no mushrooms have ever been grown in a given household, it is still likely that the individuals in it are aware of the practice and have observed it closely through the mushroom growing activities of their friends, relatives, and neighbors (reported in 43 per cent of the households). Only a few households (13 per cent) report that they have never grown mushrooms or have never been exposed to it in this way.

243 At the height of the boom, the demand for rice straw
244 swept many of the fields clean of the stubble usually left
234 there after harvest, thereby decreasing food for the roaming
177 buffalo and the small increment of nutrients usually plowed back into the soil.

The advantages of mushroom culture cited by Goldsen and Ralis (1957) were 1) the cash outlay required was small, 2) returns were realized quickly as the cycle was completed in two to three weeks, 3) little heavy work was required and 4) at the time when Ralis made the survey, a ready market was available. When, in 1957, the price dropped sharply, most of the growers gave up.

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Food for Homage-to-the-Teacher Rite Performed by a Buddhist Priest Who Was a Traditional Practitioner

Item	Amount	Cost in Baht	Item	Amount	Cost in Baht
Cereals and Legume Seeds:			Fish and Meat (cont.):		
Rice noodles		10.	Dried fish	6	gift
Soybeans & fermented vegetables	25 kg.	12.	Roasted fish	3 kg.	gift
			Shrimp paste	2 kg.	18.
Mung beans	10 lit.	25.	Lobsters		15.
Cassava flour		2.25	Lobsters (for soup)		7.50
Sugar and dessert:			Pig's skin (for soup)		10.
			Beef[1]	15 kg.	150.
Palm sugar	1 pail	67.	Ingredients for Mussel-man curry[1]		27.
Cane sugar	14 kg.	85.			
(2)Kha-(5)nom (3)tuaj-(1)foo	500 cups	35.	Boiled chickens[2]	2	22.
			Pig's head[2]	4 heads	222.
Fish and Meat:			Pork[2]	4 kg.	40.
Fish ((1)plaa (2)myk) for soup		6.			
Silurus and serpenthead	60 kg.	gift			

4:Phillips E-4,5 (1956-1957) 1966
AO7 Central Thai AO7
Bang Chan
Thailand AO1

whole, depends in large part on one's frame of reference.[2] In the most general terms, the people of Bang Chan are like almost all ethnic Thai peasants (excepting on some counts Thai Moslems and some of the economically disenfranchised people of the Northeast) in that they have a keen sense of membership in the nation-state with a deep loyalty to the Crown, speak the Thai language, are Therevada Buddhists, are outwardly highly deferential to the authority of the Central government, and have a conception of the good life that stresses fun, physical comfort and security, intellectual simplicity and practicality, and a moral (as contrasted with a natural) ordering of the universe. Too, like the vast majority of their rural compatriots,[3] they are engaged in the production of rice, an activity which to them is not only an economic operation (Ingram 1955, Janlekha 1955) but almost a way of life, being bound up with their social structure, dietary habits, religious practices, and even their philosophical (J. R. Hanks 1961) and aesthetic conceptions.

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[2] For readers unfamiliar with Thailand, the nation-state, it should be noted that the country is predominantly rural; 84 percent of the total national labor force is in agriculture and there are only ten towns with populations of 20,000 people or more, in which 6 percent of the national population (1947 census) live. Although Bangkok has a population of approximately 1,200,000, the second largest city, Chiengmai, has only 60,000 (1957 estimate).

The nation also has a high degree of ethnic homogeneity, 82 percent of the population considering themselves native Thai (1957 estimate). The largest ethnic minority group is the overseas Chinese, comprising 11.3 percent of the population (1953 estimate, from Skinner 1957), the balance being Malays, Cambodians, and Indians; the so-called tribal groups number in toto only about 150,000 people.

The religious composition of the country is 94.1 percent Buddhist, 3.9 percent Moslem, 0.5 percent Christian, and 1.5 percent "others," many of whom are tribal animists. Thai Buddhism is of the Southern (Therevada, Hinayana, or "Lesser Vehicle") variety and as practiced by most Thai, has syncretized within it many Brahmanic and traditional Southeast Asian animistic elements (see the chapter on "Religion" in Sharp *et al.* 1956, and Textor 1960). The largest minority religion, Islam, is practiced by ethnic Malay living in the four southernmost provinces of Thailand, as well as by some ethnic Thai—many of them descendants of former Malay slaves or war prisoners—scattered through the areas north and east of Bangkok, including Bang Chan, where they comprise 9.8 percent of the local population. Relationships between Buddhists and Moslems, at least in Bang Chan, are quite amicable and except for ideal prohibitions against intermarriage and occasional offhand remarks such as "Moslem women are loose" or "Moslems kill animals," there is little overt hostility between the two groups. Certainly few Bang Chaners ever distinguish between their Buddhist and Moslem neighbors when arranging a work group, selecting a drinking partner, or even compiling a guest list for a son's ordination.

[3] Janlekha (in Sharp *et al.* 1953: 110) indicates that 55 percent of the total national labor force is involved *solely* in the cultivation of rice—which occupies approximately 90 percent of the total cultivated land area—and as many as 92 percent of all agricultural households are rice households. The 55 percent figure excludes all those people who are involved in the transportation, milling, storing, and distribution of rice. Eighty-five percent of the population of Bang Chan (1953) are rice farmers.

4:Phillips E-4,5 (1956-1957) 1966
AO7 Central Thai AO7
Bang Chan

593 she gives it to me." In describing his relationship with his maternal grand-
152 parents, with whom he spent all but two of the first twelve years of his life,
159 this same person says:
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> My younger sister and I were born one year after the other. So mother gave me to grandmother to be weaned. I lived with her until I became a novice at the monastery at the age of twelve. I lived with grandmother, so I loved grandmother and grandfather more. I loved grandmother even more than my own mother and father. Wherever grandfather and grandmother went, I went too. Grandmother loved me: she always gave me sweets and toys. I had everything I wanted because I was the only young thing in the house. She loved me. She was going to give her property to me, land and gold, as much as she was going to give to her own children. But it was only a promise. I got the gold, but not the land, because when grandmother died, grandfather got a new wife. She was young. . . . I didn't quite like her. The young woman was too economical. . . . Sometimes she prevented grandfather from buying good things for me. When grandfather was going to buy gold or anything for me, she stopped him. She wanted him to buy for her more than for his grandchild.

593 This excerpt, taken from the biography of one of the life history informants and comprising almost the complete portrayal of the relationship between the informant and the individuals with whom he spent the crucial years of his childhood, is by no means atypical. The point is that of all the myriad
(431) elements in the relationship, or of all the loving characteristics that in his
(603) eyes the grandparents had, he chose to emphasize only the material gifts they had given him as the measure of their love. Other informants are no different: one man said he knew his father did not love him because when he died he left the family home to the Buddhist monastery; and a woman said she admired her father because "when he died there was property left. He was a good man: he did not abandon his children. He was worried about them." (Her other reason for *admiring* him was that "he was the person who brought me into the world.")

596 The other major form of familial love is evidenced in the camaraderie,
593 warmth, and generosity that surrounds the family in planning and ac-
243 complishing the various tasks associated with rice farming. As indicated earlier, the cultivation and harvesting of rice is not only an economic operation in Bang Chan, but almost a way of life. When villagers must deal with the very real and complex problems of planting and bringing in the harvest, all the individualistic propensities, and even to an extent the authority patterns, with which they normally indulge themselves recede before the coöperative requirements of the task at hand. In a very real sense the functional requirements of the economic activity, particularly during

4:Phillips E-4,5 (1956-1957) 1966
AO7 Central Thai AO7
Bang Chan

harvest time, serve to create a rite of intensification as family members decide together what work will be done by whom, arise early in the morning to work together happily in the fields—sometimes for as long as fourteen hours at a stretch—and actually see the fruits of their coöperative labor mount up on the threshing floors. The sense of familial solidarity and intradependence, and its associated feelings of love, is experienced by all.[16] Also, since harvesting more often than not involves working reciprocally with other families, the host of a reciprocal labor group giving a feast whenever possible at the end of the day, it serves, although to a lesser extent, to intensify feelings of membership in the larger community.

Summary

In my discussion of the "cultural background," I have dwelt primarily on kinship because the family is functionally the most significant social unit in the village and because it is within the context of kinship that personality is developed and, in Bang Chan, most frequently expressed. None of this is meant to imply a lack of importance for other social units—the monastery, the school, the state—or for the non-institutionalized relationships—friends, drinking partners, and business contacts. However, kinship does provide the basic psychological model for all human relationships in Bang Chan,

[16] Although the annual cycle of Thai peasants is described in detail in the available ethnographies on Thai rural life (deYoung 1955, Fraser 1960, Kaufman 1960, Kingshill 1960, Sharp *et al.* 1953) a few words should be added about the psychological dimensions of this cycle. Thus familial solidarity, intradependence, and love are not the only sentiments that are heightened during the harvest period. Perhaps the most striking quality of this season (December to January) is the increase in the optimism, joy, and general psychic well-being of the villagers: people laugh more loudly than usual; they relish telling about the things they are going to buy, parents take more kindly to the gallivanting of the children. These months contrast with transplanting time (late July to early August) and the period prior to harvest (October to November), when an overabundance of rain can destroy the villagers' rice seedlings or their entire crop. These latter periods are marked not so much by anxiety as by a sense of watchful waiting. All these contrast with the Dry season when things are especially quiet in Bang Chan and when villagers spend their time repairing farming equipment and houses, gossiping, or are working on jobs outside the community. Villagers say that of the three major seasons of the year (Dry, February to June; Rainy, June to January; Cold, January to February) they like the Rainy season best. The season coincides with the rice-growing cycle, is marked by Buddhist Lent and, excepting a final week of Monsoon downpour, is in fact the most comfortable period of the year.

These seasonal activities and attitudes also have direct implications for field work. Thus, while villagers gave freely of their time during the dry season and after the harvest, and during the latter were especially outgoing and benign, many simply would not see me during the weeks of planting and harvesting. The benign attitudes of villagers interviewed after the harvest were reflected directly in the data, as were the noncommittal responses of some villagers who were interviewed during transplanting time.

BANG CHAN

FOREWORD

The Cornell Thailand Project, like other Cornell University studies in community development, is a long term investigation in the field of the processes involved in changing cultural behavior in a non-industrialized society. Field research was begun in 1948 in the central plain of Thailand with base line studies of the rice farming community of Bang Chan and its environs. A collaborating staff of Thai and Americans representing different disciplines has continued to work in Thailand at Bang Chan and elsewhere in a series of phases extending to the present.

The first interim report issued by the Project gives a general account of the economic, political and social organization of Bang Chan in 1948-49 together with some material on health and diet (Sharp et al., 1953). Since the circulation of this first interim report was limited, some of the salient characteristics of Bang Chan should be outlined here.

Bang Chan is located some twenty roadmiles northeast of Bangkok, the rapidly growing major metropolis and capital of Thailand. The village is between two and three miles west of a small district administrative center and market town, Minburi. A century-old canal and to the north of it a post-war hard surface road connect Minburi and Bangkok so that villagers have easy access to these two centers by boat or bus.

In 1954, when data for the present study were still being gathered, the population of Bang Chan was about 1700, divided among about 300 households. Roughly 60 per cent of the households were made up of independent nuclear families consisting of parents and unmarried children. The average size for all families was 5.7 persons. Rice farming was the main occupation of 80 per cent of all families. The population in 1954 worked and lived on about 2800 acres (7000 rai) of land. With the exception of some 120 acres (300 rai) used for the home sites and home gardens scattered along the network of canals in the village, all land was devoted to the cultivation of wet rice. Nutritional density is thus practically the same as population density. Of the rice crop, 60 per cent or more may be sold, the remainder providing seed, feed, and the staple food of the people. During the wet season and into the cooler dry season, from May or June to February, the growing of the single crop of rice is the main activity. The hot dry season from March until the rice planting begins again is a period of fiestas, ceremonies, and visiting.

The Thai countryside is divided into hamlets, each with a headman in charge of the thirty to sixty households of the hamlet. Seven such hamlets constitute the Bang Chan community. (In the Project studies they are identified by the initials BC and KY followed by a number).

121 I recall seeing portable motors stored in some Bang Chan houses and
• [243] can still picture many threshing floors with neatly layered heaps
[244] of rice straw where the mushrooms grew. A few of these apparently "progressive" farmers had special ponds to which they proudly invited me to watch the feeding of the tilapia fish. Occasionally one of them seized the opportunity of my visit to inquire about sending a sick kinsman to a Bangkok hospital. Without Dr. Goldsen's analysis I might easily have been lured to generalize that certain farmers were "innovation minded."

*177 The survey's evidence against a general "innovation mindedness"
*178 cautioned me to reconsider my impressions. I realized that it would
121 be an oversimplification of the social network in Bang Chan to
621 think of it as containing a group of "progressives" who sought avidly each new agricultural wrinkle and who pitted themselves against another group of "conservatives" who resisted change. Instead I was led to see some farmers interested in certain new things, others indifferent to these but interested in other things. Bang Chan looked more like a mosaic of small groups, each fitting or rejecting the new according to its circumstance.

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*178 Instead of thinking simply of a group of highly motivated,
243 wealthy farmers who assumed the responsibility of trying out the
244 new for the benefit of their less affluent neighbors, I was alerted to recognize a variety of kinds of innovation. Innovation in growing rice, where one might employ a motor or fertilizer, differed considerably from earning extra cash during the dry season by growing mushrooms. The analysis of the survey evidence made me sensitive to the realization that mushroom culture was clearly a seasonal activity requiring little investment and open to any family, rich or poor, that needed cash. Certainly no genuine rice farmer would permit this extra work to interfere when the rains called time for ploughing. The finding that no correlation existed between acceptance of motors and growing mushrooms seemed in retrospect clear, almost self-evident.

*177 The survey analysis indicating that owning a motor, despite
182 my initial impressions, bears no relation to use of modern medical
244 facilities, made me reexamine my initial impressions. My own
757 studies had made me aware that making a living is a positive action among Bang Chan farmers: it requires forethought and will. Health, however, for Bang Chan is a kind of negative entity to be taken for granted until sickness arrives. Bang Chan has no vitamin pills nor tonics to maintain health, though all work actively to relieve sickness. Growing mushrooms and using modern medical facilities are phenomenally different undertakings. Certainly the survey analysis in this regard bore out and corroborated this "thematic" analysis.

arbitrary, were it not for the Buddhist temples, a neighboring government-operated primary school, and a few small stores, all of which provide a center for the community. There the inhabitants paddle their boats for religious observances, their children attend school, and anyone with a few minutes gossips over a cup of coffee. These people, furthermore, speak of themselves when outside the community as coming from Bang Chan, and the temple familiarly called "Wat Bang Chan" helps outsiders to identify the particular area. 361 621

The community's 1600 inhabitants live in one of seven hamlets, each with an officiating headman who may offer some leadership to the neighborhood. Bang Chan has no political unity beyond the informal influence of the head priest at the temple, for administrative units of local government disregard its social and psychological coherence. On one side of the main canal headmen go a rough two miles to attend meetings with the District Officer, while their neighbors across the canal must spend half a day on the canal to reach the district offices which govern them. 161 621 634 624

As the survey results indicate, about 88 per cent of the households receive the major portion of their income from cultivating rice, though many of these men and women turn briefly to other occupations during the slack season. The remaining fraction is divided between persons engaged in trade as storekeepers or vendors and those in such service occupations as highway labor or school janitor. 621 243 • 434 443 464

A little less than half of the population owns the land or a portion of the land it works, the remainder renting from neighbors and landholders living away from Bang Chan. Though land becomes scarcer every year and its subdivision into small plots finer, land problems and landlord problems are not important concerns of the area farmers. Economic factors also grant higher status within the community to land holders than to renters and the landless. So also age and religious piety bring respect. Yet social structure articulates flexibly enough to afford a young renter of good reputation and energy a decent hearing at a meeting, and indeed, he might carry his point in a group of wealthy landholders. Two or three times in past generations young men have moved from thatched houses in Bang Chan to high government positions in Bangkok through fortunate connections that enabled them to attend leading schools, as well as through their own industry. People merely invoke the Buddhist concept of accumulating merit in present and past lives through good deeds when they comment on the rise of such persons, for with sufficient merit all is possible. Thus regularity in the socio-economic order becomes a moderate level of probability admitting many exceptions. 423 427 554 621 [555] [771]

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The Innovations

A. Agricultural Innovations: During the past few years, certain innovations have come to Bang Chan which have increased agricultural productivity and improved the level of living. Some of these innovations are listed below.

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[ZH]

1. The small motor. One innovation is the small engine, gasoline motor, which is used mainly as a water-lifting device for irrigation purposes. In 1950 only five small motors were found in Bang Chan.* Twenty-one per cent of the respondents in the 1955 survey, however, report owning these motors; the majority of the respondents (68 per cent) claim to have used this labor-saving device which is sometimes jointly owned by more than one household and is frequently loaned out.**

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2. Straw mushroom growing. Three years ago the commercial growing of mushrooms in Bang Chan was unknown. By 1955, the practice of growing mushrooms had reached into many homes (44 per cent of the respondents report that they have engaged in this activity***). Even if no mushrooms have ever been grown in a given household, it is still likely that the individuals in it are aware of the practice and have observed it closely through the mushroom growing activities of their friends, relatives, and neighbors (reported in 43 per cent of the households). Only a few households (13 per cent) report that they have never grown mushrooms or have never been exposed to it in this way.

One advantage in the culture of straw mushrooms is that it permits quickly realized returns. The cycle, from sowing spores in moistened straw to harvesting the mushrooms, takes about two to three weeks. Another advantage is that there is relatively little heavy work or investment required besides the acquisition of straw and spores. A third advantage is a ready market, for the plant is sought by Chinese dealers in Bangkok who supply hotels and restaurants. Bang Chan rice farmers who engage in mushroom growing as a sideline activity sell it either to local middlemen or directly to the Chinese in Bangkok.

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[113] * Sharp, L., H. M. Hauck, K. Janlekha, and R. B. Textor, Siamese Rice Village, A Preliminary Study of Bang Chan. Thailand, Cornell Research Center, June, 1953.

[125] ** The questions: "Do you own a small engine motor or not? (If 'NO'): Have you ever made use of one in your work?"

[125] *** The question: "Have you ever grown mushrooms, or not?"

Economic Level

It could be, of course, that people on a higher economic level are in a better position to try agricultural innovations, since they might more easily afford not only an initial cost but also possible loss in trying out something new.

The survey data provide several indicators of economic level. Among other questions on this subject, all respondents were asked: "Here in your household how many buffaloes do you own?" About one-quarter reported owning no buffaloes at all; a little more than that proportion reported owning four or more; the median number of buffaloes reported was between two and three.

In Bang Chan buffalo are an indication of wealth, as is the amount of land planted to rice. Thus all farmers in the sample were also asked, "Last time you planted rice, how many rai* of rice did you plant?" About a third reported that they planted 19 rai or less; about one-fourth reported that they planted 40 rai or more; the median number of rai reported was 26.3.

If the reported number of buffalo owned is an adequate measure of economic level, then one would expect a high correlation between reported buffalo ownership and reported number of rai planted. If the expectation is borne out by the survey data the two indices may be used interchangeably. (Table 7 reports this relationship for the male farmers in the sample.)

TABLE 7. FARMERS# WHO OWN MORE BUFFALOES ARE MORE LIKELY TO CULTIVATE LARGER LAND HOLDINGS

"...how many buffaloes do you own?"	None, one or two (99)	Three or more (112)
"...how many rai of rice did you plant?		
Less than 9	31%**	11
10-19	32	7
20-29	18	27
30-39	15	23
40-or more	3	41

Male farmers only
** Percentages may add to 99 or 101 owing to rounding of figures.

* A Thai land measure; 1 rai = 0.4 acres.

7. I understand that, since the last war, there have been, around here, some introductions of new things in the field of rice farming, other farming, gardening, and fishing in order to raise production. What are these various new things? (177* 178* 125 [241] 402 [243] 228 244 235 231)

1.	Fertiliser	9
2.	Small engine	4
3.	New rice seeds	3
4.	Tilapia	98
5.	Other fish, specified	13
6.	Fish, unspecified	80
7.	Mushrooms	45
8.	Poultry	179
9.	Pigs	21
X.	Other, specify	68
0.	Unascertainable	45

8. Here, some farmers get a lot more rice from one rai of land than others get. Generally speaking, what are the various reasons why this is so? [243] [433]

1.	Fertiliser	59
2.	Skill of the farmer	63
3.	Quality of the soil	65
4.	Irrigation facilities	125
5.	Type of seed	17
6.	Other reason, specify	53

9.a. When was it more profitable for you to grow rice, this year just finished, or two or three years ago? [243] [434]

1.	This past year	131
2.	No difference	57
3.	2 or 3 years ago	62
4.	Unascertainable	25
—	Does not apply	58

b. If 2-3 years ago: If this is so, then it has become less profitable to grow rice. Such being the case, have you done anything to improve the income of your family?

7.	Yes	36
8.	No	25
9.	Unascertainable	1

c. If yes: what various things have you done?

5.	Nothing	4
6.	Mushrooms	6
7.	Poultry	8
8.	Fish (Incl. Tilapia)	5
9.	Fertiliser	
X.	Other, specify	25
Y.	Unascertainable	2

10.a. Do you own a small engine motor, or not? [402]

1.	Yes	70
2.	No	259
—	No Answer	4

16.a. ASK ONLY FARMERS: This year just now beginning, will you do anything for increasing your income, outside of rice farming? [125] [434]

3.	Does not apply	13
4.	Yes	162
5.	No	107
6.	Unascertainable	

b. IF YES: What various things will you do? [224] [235] [228] [241]

0.	Nothing	3
1.	Mushrooms	42
2.	Poultry	51
3.	Fish (Incl. tilapia)	10
4.	Fertiliser	2
5.	Other, spec[illegible]	84
6.	Unascertainable	6

17. ASK ONLY FARMERS:

a. Last time you planted rice, how many rai of rice did you plant? [243] [433]

1.	4 rai or less	14
2.	5 to 9 rai	25
3.	10 to 19 rai	49
4.	20 to 29 rai	65
5.	30 to 39 rai	53
6.	40 to 49 rai	32
7.	50 to 59 rai	19
8.	60 to 69 rai	14
9.	70 to 79 rai	2
X.	90 rai or more	—
0.	Unascertainable	20

b. And what was the total yield?

1.	120 tang or less	15
2.	121 to 300 tang	28
3.	301 to 600 tang	59
4.	601 to 900 tang	59
5.	901 to 1200 tang	56
6.	1201 to 1500 tang	25
7.	1501 to 1800 tang	10
8.	1801 to 2100 tang	10
9.	2101 to 2700 tang	7
X.	2701 or more tang	3
0.	Unascertainable	21

c. How about the year before--how many rai did you plant?

1.	4 rai or less	16
2.	5 to 9 rai	19
3.	10 to 19 rai	51
4.	20 to 29 rai	67
5.	30 to 39 rai	53
6.	40 to 49 rai	26
7.	50 to 59 rai	20
8.	60 to 69 rai	13
9.	70 to 89 rai	5
X.	90 rai or more	—
0.	Unascertainable	23

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[243]
[433]

17.d. And what was the total yield at that time?

1.	120 tang or less	20
2.	121-300 tang	14
3.	301-600 tang	62
4.	601-900 tang	64
5.	901-1200 tang	50
6.	1201-1500 tang	23
7.	1501-1800 tang	10
8.	1801-2100 tang	8
9.	2101-2700 tang	7
X.	2701 or more tang	4
0.	Unascertainable	31

e. And how many rai did you plant two years back?

1.	4 rai or less	18
2.	5 to 9 rai	17
3.	10-19 rai	45
4.	20-29 rai	72
5.	30-39 rai	52
6.	40-49 rai	26
7.	50-59 rai	18
8.	60-69 rai	12
9.	70-89 rai	4
X.	90 rai or more	—
0.	Unascertainable	29

f. And what was the total yield that time?

1.	120 tang or less	20
2.	121-300 tang	24
3.	301-600 tang	48
4.	601-900 tang	69
5.	901-1200 tang	38
6.	1201-1500 tang	8
7.	1501-1800 tang	7
8.	1801-2100 tang	5
9.	2101-2700 tang	4
X.	2701 or more tang	1
0.	Unascertainable	69

[243]
[435]

18. ASK ONLY FARMERS:

a. Have the changes in the price of rice during the last two or three yea
caused you any worry, or not?

7.	Yes	156
8.	No	104
9.	Unascertainable	33

b. IF YES: What are you doing about it?
(See code at end)

[243]

19.a. Do you, at present, have your own home rice mill, or not?

X.	Yes	105
Y.	No	228

b. IF YES: What various things do you do with the polishings? 125

1.	DA as mill not used	3
2.	Used for feed	99
3.	Used for food	—
4.	They are sold	3
5.	Other, specify_____	3
6.	Unascertainable	2

[243]

c. ASK ALL: During this past year, did your family eat home-milled rice entirely, in major part, in minor part, or not at all? [262]

7.	Entirely	5
8.	For major part	51
9.	For minor part	78
X.	Not at all	199

20.a. As you know, some people have had plenty of chance to learn to read, while others have hardly had any chance. How about you yourself? Are you able to read the Thai language, or haven't you ever had the opportunity to do any reading? [212]

1.	Yes, can read	224
2.	No	109

b. IF R CAN READ: Would you say it is hard for you to read, or easy, or about medium?

3.	Hard	15
4.	Easy	85
5.	Medium	124
6.	Unascertainable	—

c. ASK ALL: Now how about writing? How is it with you yourself? Are you able to write Thai, or haven't you ever had the opportunity to do any writing?

7.	Yes, can write	227
8.	No	106

d. IF R CAN WRITE: How much writing do you do? Are you able to sign your name, or can you also write a letter?

9.	Sign name only	63
X.	Can write letter	163
0.	Unascertainable	1

21.a. Suppose there were a factory in Minburi paying 20 tiesls per day. Would you apply for a job to work in this factory? [464]

7.	Yes	162
8.	No	159
9.	Unascertainable	12

b. Do you think that someone else from your house would apply for a job there?

X.	Yes	105
Y.	No	211
0.	Unascertainable	17

125
[412] 50.d. (In your household) is there a pair of scissors of any kind or not?

	7. Yes, scissors	219
	8. No	114

[207] e. (In your household) is there a radio or not?

	9. Yes, radio	47
	0. No	286

[402] f. (In your household) is there a winnowing machine, or not?

	X. Yes, winnowing machine	102
	Y. No	231

[243] g. (In your household) is there a windmill, or not?
[402]

	1. Yes, windmill	161
	2. No	172

[805] 51. Do you have a wrist watch, or not?
[405]

	3. Yes	79
	4. No	252
	— No Answer	2

[231] a. Here in your household, how many buffaloes do you own?

	5. None	81
	6. One	27
	7. Two	67
	8. Three	61
	9. Four or more	97

b. (Here in your household) how many pigs do you have?

	0. None	321
	1. One	2
	2. Two	2
	3. 3 or more	1
	— No Answer	7

[235] c. (Here in your household) how many chickens do you have?

	4. None	35
	5. 1 to 2	7
	6. 3 to 4	17
	7. 5 to 9	31
	8. 10 or more	243

d. (Here in your household) how many ducks do you have?

	0. None	208
	1. 1 to 2	9
	2. 3 to 4	16
	3. 5 to 9	58
	4. 10 or more	42

	Qu 11	Qu 13	Qu 152	
1. Positive, no evidence: very good, good, nice	103	114	77	125 241
2. Positive, with evidence: good results, specific statements	47	120	95	244
3. Neutral or mixed	11	20	6	228
4. Negative, no evidence: no good, bad, of no use	9	5	15	
5. Negative, with evidence: difficult to apply in deep water, must keep using it, too expensive, some results as without fertiliser	33	13	80	
6. Positive, qualified: Fertiliser too expensive	13	—	1	
7. Positive, qualified otherwise: only for high land; very hard to purchase; requires to keep on using it	32	18	18	
8. Respondent states he has no opinion	54	31	86	
X. Negative, qualified: It is not quite good, it depends on the soil	4	4	3	
0. No answer	4	3	1	
9. Respondent's attitude not ascertainable	23	5	11	

	Qu 129	
0. D.A.	85	125 241
1. Too expensive	78	
2. Difficult to purchase	15	
3. Not fit for low land	39	
4. Soil not suitable	3	
5. No ascertainable reason given	28	
6. Too little land	7	
7. Other reasons	56	
8. Have never used it before. Do not now either	12	
X. N.A.	105	
9.	21	

	Qu 168	
X. N.A. Unascertainable	60	125 243 • 435 458
0. D.A.	151	
1. Nothing, cannot do anything	70	
2. Grow mushrooms	12	
3. Raise poultry	15	
4. Raise fish (including Tilapia	7	
5. Use fertiliser	—	
6. Find job as laborers	6	
7. Other: try to find new seed, sell vegetables, borrow money from neighbors, keep rice until price goes up, economise, send sons to work	86	

243

[For agricultural data, passim, see category 116, pp. 1-4, 31-38, 45-48, 92-148, 166-319, and 336-393.]